



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0885; Project Identifier MCAI-2021-01429-T; Amendment 39-22209; AD 2022-21-10]

RIN 2120-AA64

Airworthiness Directives; MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702); CL-600-2C11 (Regional Jet Series 550); CL-600-2D15 (Regional Jet Series 705); CL-600-2D24 (Regional Jet Series 900); and CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by reports that the landing gear age of certain airplanes was higher than expected for gear overhaul, which could increase the risk of corrosion. This AD requires verifying the calendar age of the nose landing gear (NLG) and main landing gear (MLG) by way of component maintenance documents, and performing corrective actions if necessary. This AD also prohibits installing certain components. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0885; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact MHI RJ Aviation Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email thd.crj@mhirj.com; website [mhirj.com](https://www.mhirj.com).

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0885.

FOR FURTHER INFORMATION CONTACT: Jiwan Karunatilake, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyacocos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702); CL-600-2C11 (Regional Jet Series 550); CL-600-2D15 (Regional Jet Series 705); CL-600-2D24 (Regional Jet Series 900); and CL-600-2E25 (Regional Jet Series 1000) airplanes. The NPRM published in the *Federal Register* on July 21, 2022 (87 FR 43450). The NPRM was prompted by AD CF-2021-49, dated December 20, 2021, issued by Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada (referred to after this as the MCAI). The MCAI states that the landing gear age of certain airplanes was higher than expected for gear overhaul. The MCAI notes that undetected corrosion could lead to MLG and/or NLG collapse, and consequent damage to the airplane and injury to the occupants.

In the NPRM, the FAA proposed to require verifying the calendar age of the NLG and MLG by way of component maintenance documents, and performing corrective actions if necessary. The NPRM also proposed to prohibit installing certain components. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0885.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement

with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

MHI RJ has issued Service Bulletin 670BA-32-062, dated December 2, 2021. This service information describes procedures for, among other actions, verifying the calendar age of the NLG and MLG by way of component maintenance documents and for removing affected landing gear components and replacing them with serviceable components. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 624 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
4 work-hours X \$85 per hour = \$340	\$0	\$340	\$212,160

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
Up to 32 work-hours X \$85 per hour = Up to \$2,720	Up to \$340,000	Up to \$342,720

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-21-10 MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.): Amendment 39-22209; Docket No. FAA-2022-0885; Project Identifier MCAI-2021-01429-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all MHI RJ Aviation ULC airplanes identified in paragraphs (c)(1) through (5) of this AD, certificated in any category.

(1) Model CL-600-2C10 (Regional Jet Series 700, 701, & 702).

(2) Model CL-600-2C11 (Regional Jet Series 550).

(3) Model CL-600-2D15 (Regional Jet Series 705).

(4) Model CL-600-2D24 (Regional Jet Series 900).

(5) Model CL-600-2E25 (Regional Jet Series 1000) airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Unsafe Condition

This AD was prompted by reports that the landing gear age of certain airplanes was higher than expected for gear overhaul. The FAA is issuing this AD to address the possibility of undetected corrosion due to landing gear age that could lead to main landing gear (MLG) and/or nose landing gear (NLG) collapse, and consequent damage to the airplane and injury to the occupants.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Determination of Component Calendar Age

Within 90 days after the effective date of this AD: Verify the airplane and/or the airplane technical records to determine whether any MLG and NLG components are affected components based on their calendar age, in accordance with Section 2, Part A, of the Accomplishment Instructions of MHI RJ Service Bulletin (SB) 670BA-32-062, Revision A, dated December 2, 2021.

(h) Removal and Replacement of Affected NLG Components

(1) Within the applicable compliance time indicated in figure 1 to paragraph (h) of this AD: Remove the affected NLG components identified in paragraph (g) of this AD in accordance with Section 2, Part B, of the Accomplishment Instructions of MHI RJ SB 670BA-32-062, Revision A, dated December 2, 2021.

(2) Before further flight after removal of the affected components, replace the removed components with serviceable components, in accordance with Section 2, Part D, of the Accomplishment Instructions of MHI RJ SB 670BA-32-062, Revision A, dated December 2, 2021.

Figure 1 to paragraph (h) – Compliance time

Component Calendar Age	Compliance Time
Less than 10 years	Prior to reaching 12 years' component calendar age or within 36 months after the effective date of this AD, whichever occurs later
10 years or more and less than 12 years	Within 36 months after the effective date of this AD or prior to reaching 14 years' component calendar age, whichever occurs first
12 years or more and less than 13 years	Prior to reaching 14 years' component calendar age
13 years or more and less than 14 years	Within 12 months after the effective date of this AD
14 years or more	Within 6 months after the effective date of this AD

(i) Removal and Replacement of Affected MLG Components

(1) Within the applicable compliance time indicated in figure 1 to paragraph (h) of this AD: Remove the affected MLG components identified in paragraph (g) of this AD in accordance with Section 2, Part E or H, as applicable, of the Accomplishment Instructions of MHI RJ SB 670BA-32-062, Revision A, dated December 2, 2021.

(2) Before further flight after removing the affected components, replace the removed components with serviceable components, in accordance with Section 2, Part G or J, as applicable, of the Accomplishment Instructions of MHI RJ SB 670BA-32-062, Revision A, dated December 2, 2021.

(j) Parts Installation Limitation

(1) As of the effective date of this AD, no person may install, on any airplane, any MLG or NLG component with a calendar age of 12 years or more unless it has been overhauled in accordance with Section 2, Part C, F, or I, as applicable, of the Accomplishment Instructions of MHI RJ SB 670BA-32-062, Revision A, dated December 2, 2021.

(2) As of the effective date of this AD, any MLG or NLG component with a calendar age of less than 12 years may be installed on any airplane, provided it is overhauled in accordance with Section 2 Part C, F, or I, as applicable, of the Accomplishment Instructions of MHI RJ SB 670BA-32-062, Revision A, dated December 2, 2021, prior to reaching 12 years' component calendar age.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or MHI RJ Aviation ULC's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(l) Additional Information

(1) Refer to TCCA AD CF-2021-49, dated December 20, 2021, for related information. This TCCA AD may be found in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0885.

(2) For more information about this AD, contact Jiwan Karunatilake, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) MHI RJ Service Bulletin 670BA-32-062, Revision A, dated December 2, 2021.

(ii) [Reserved]

(3) For service information identified in this AD, contact MHI RJ Aviation Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email thd.crj@mhirj.com; website mhirj.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on October 3, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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